REFRIGERATOR MANUFACTURER

Turbo air

Solid Door M3

Model No.:

M3R19-1-N	M3R19-1-N-L
M3R24-1-N	M3R24-2-N
M3R24-1-N-L	M3R24-2-N-L
M3R47-2-N	M3R47-4-N
M3R72-3-N	M3R72-6-N
M3F19-1-N	M3F19-1-N-L
M3F24-1-N	M3F24-2-N
M3F24-1-N-L	M3F24-2-N-L
M3F47-2-N	M3F47-4-N
M3F72-3-N	M3F72-6-N
M3RF19-2-N	
M3RF19-2-N-L	
M3RF45-2-N	

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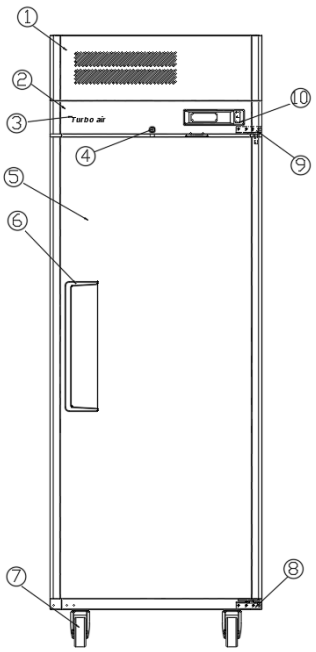
7-6. REPLACE THE CABINET HEATER AND MULLION HEATER

1.FEATURE CHART

1-1.FRONT VIEW/PLAN VIEW (1DOOR)

MODEL: M3R24-1-N M3F24-1-N

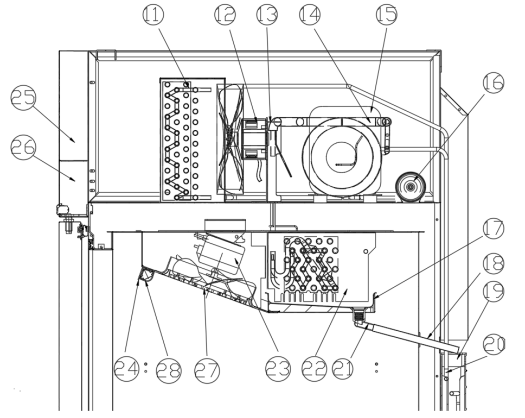
FRONT VIEW



1 TOP GRILLE(T)
2 TOP GRILLE(B)
3 MASCOT
4 KEY
5 ASS'Y DOOR
6 DOOR HANDLE
7 CASTER
8 BOTTOM HINGE
9 TOP HINGE
10 FRONT PCB CASE
11 CONDENSER
12 CONDENSER MOTOR
13 MOTOR BRACKET
14 SUCTION PIPE
15 COMPRESSER

MODEL: M3R24-1-N M3R24-2-N

PLAN VIEW

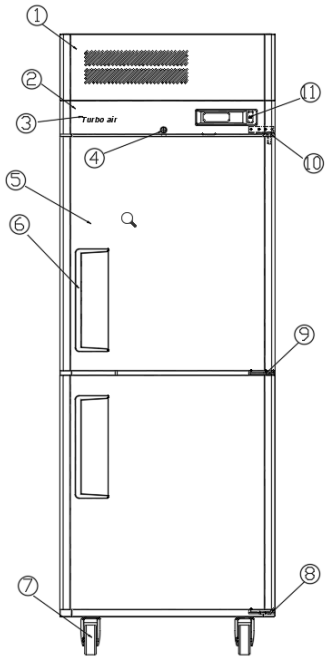


16 DRYER
17 DRAIN PAN
18 DRAIN GUIDE
19 DRAIN CASE
20 DRAIN PIPE
21 DRAIN CONNECTOR
22 EVAPORATOR
23 EVAPORATOR MOTOR
24 LAMP COVER
25 TOP GRILE T
26 TOP GRILE B
27 EVAPORATOR COVER
28 LAMP

FEATURE CHART

MODEL: M3R24-2-N M3F24-2-N

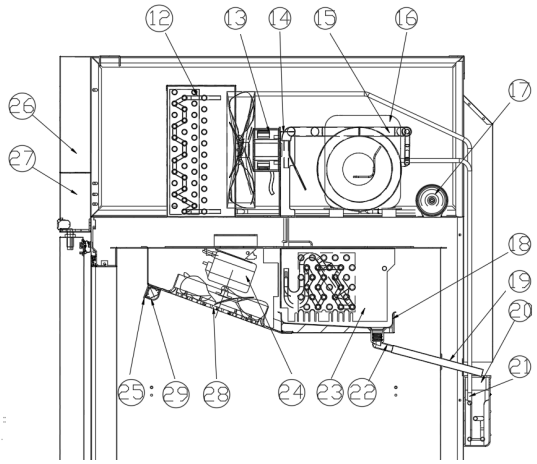
FRONT VIEW



1 TOP GRILLE(T)
2 TOP GRILLE(B)
3 MASCOT
4 KEY
5 ASS'Y DOOR
6 DOOR HANDLE
7 CASTER
8 BOTTOM HINGE
9 MIDDLE HINGE
10 TOP HINGE
11 FRONT PCB CASE
12 CONDENSER
13 CONDENSER MOTOR
14 MOTOR BRACKET
15 SUCTION PIPE
16 COMPRESSER

MODEL: M3R24-2-N M3R24-2-N

PLAN VIEW

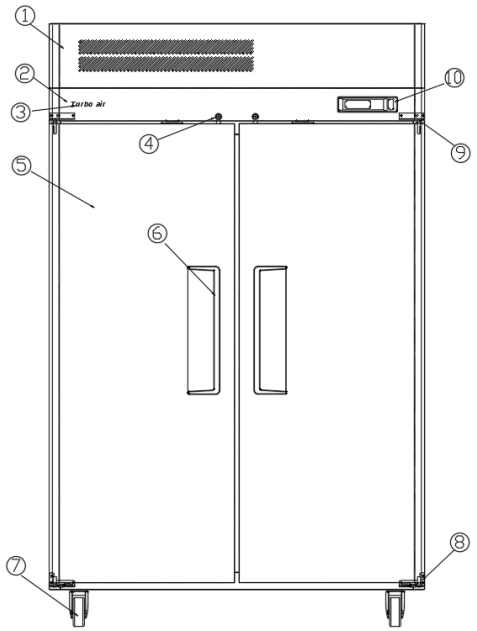


17 DRYER
18 DRAIN PAN
19 DRAIN GUIDE
20 DRAIN CASE
21 DRAIN PIPE
22 DRAIN CONNECTOR
23 EVAPORATOR
24EVAPORATOR MOTOR
25 LAMP COVER
26 TOP GRILE T
27TOP GRILE B
28EVAPORATOR COVER
29 LAMP

1-2.FRONT VIEW/PLAN VIEW (2DOOR)

MODEL: M3R47-2-N M3F47-2-N

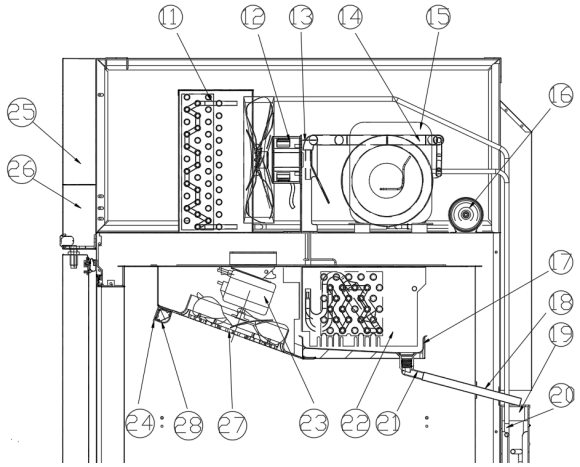
FRONT VIEW



1 TOP GRILLE(T)
2 TOP GRILLE(B)
3 MASCOT
4 KEY
5 ASS'Y DOOR
6 DOOR HANDLE
7 CASTER
8 BOTTOM HINGE
9 TOP HINGE
10 FRONT PCB CASE
11 CONDENSER
12 CONDENSER MOTOR
13 MOTOR BRACKET
14 SUCTION PIPE
15 COMPRESSER

MODEL: M3R47-2-N M3R47-4-N

PLAN VIEW

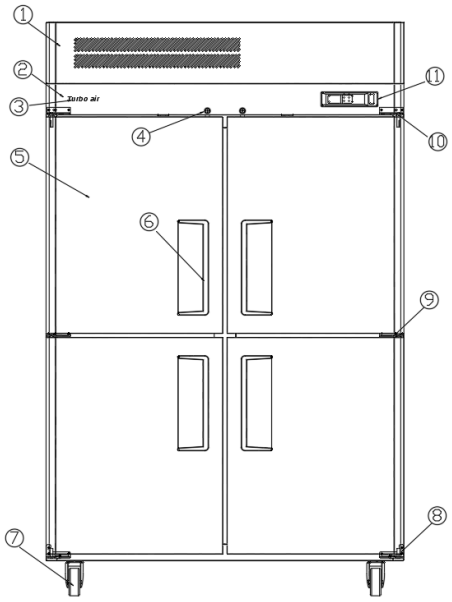


16 DRYER
17 DRAIN PAN
18 DRAIN GUIDE
19 DRAIN CASE
20 DRAIN PIPE
21 DRAIN CONNECTOR
22 EVAPORATOR
23 EVAPORATOR MOTOR
24 LAMP COVER
25 TOP GRILE T
26 TOP GRILE B
27 EVAPORATOR COVER
28 LAMP

FEATURE CHART

MODEL: M3R47-4-N M3F47-4-N

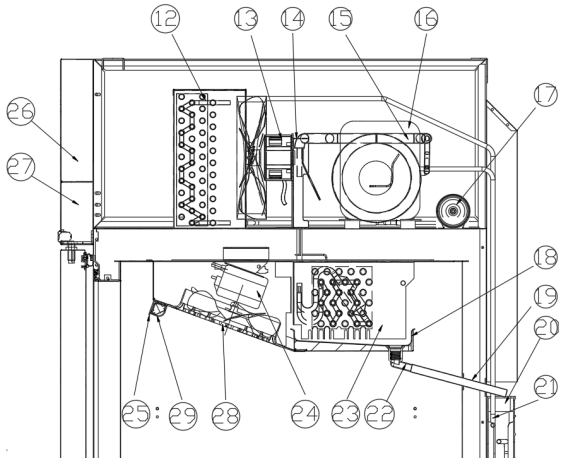
FRONT VIEW



1 TOP GRILLE(T)
2 TOP GRILLE(B)
3 MASCOT
4 KEY
5 ASS'Y DOOR
6 DOOR HANDLE
7 CASTER
8 BOTTOM HINGE
9 MIDDLE HINGE
10 TOP HINGE
11 FRONT PCB CASE
12 CONDENSER
13 CONDENSER MOTOR
14 MOTOR BRACKET
15 SUCTION PIPE
16 COMPRESSER

MODEL: M3F47-2-N M3F47-4-N

PLAN VIEW

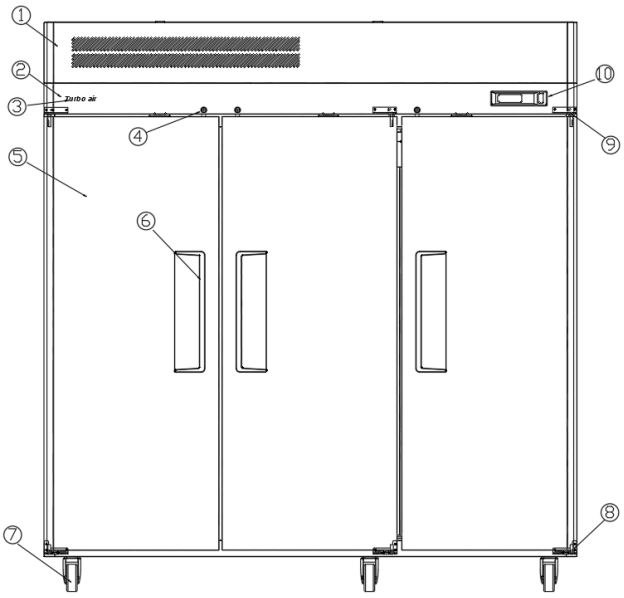


17 DRYER
18 DRAIN PAN
19 DRAIN GUIDE
20 DRAIN CASE
21 DRAIN PIPE
22 DRAIN CONNECTOR
23 EVAPORATOR
24EVAPORATOR MOTOR
25 LAMP COVER
26 TOP GRILE T
27TOP GRILE B
28EVAPORATOR COVER
29 LAMP

1-3.FRONT VIEW/PLAN VIEW (3DOOR)

MODEL: M3R72-3-N M3F72-3-N

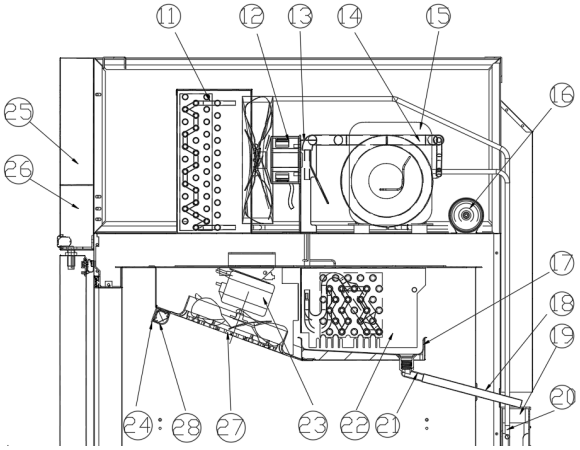
FRONT VIEW



1 TOP GRILLE(T)
2 TOP GRILLE(B)
3 MASCOT
4 KEY
5 ASS'Y DOOR
6 DOOR HANDLE
7 CASTER
8 BOTTOM HINGE
9 TOP HINGE
10 FRONT PCB CASE
11 CONDENSER
12 CONDENSER MOTOR
13 MOTOR BRACKET
14 SUCTION PIPE
15 COMPRESSER

MODEL: M3R72-3-N M3R72-6-N

PLAN VIEW

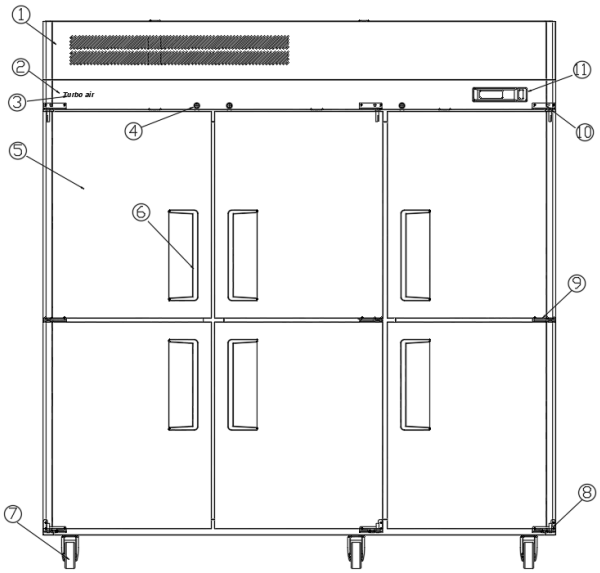


16 DRYER
17 DRAIN PAN
18 DRAIN GUIDE
19 DRAIN CASE
20 DRAIN PIPE
21 DRAIN CONNECTOR
22 EVAPORATOR
23 EVAPORATOR MOTOR
24 LAMP COVER
25 TOP GRILE T
26 TOP GRILE B
27 EVAPORATOR COVER
28 LAMP

FEATURE CHART

MODEL: M3R72-6-N M3F72-6-N

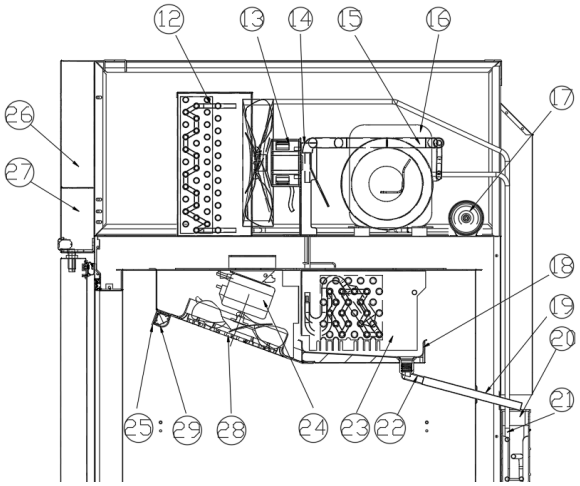
FRONT VIEW



1 TOP GRILLE(T)
2 TOP GRILLE(B)
3 MASCOT
4 KEY
5 ASS'Y DOOR
6 DOOR HANDLE
7 CASTER
8 BOTTOM HINGE
9 MIDDLE HINGE
10 TOP HINGE
11 FRONT PCB CASE
12 CONDENSER
13 CONDENSER MOTOR
14 MOTOR BRACKET
15 SUCTION PIPE
16 COMPRESSER

MODEL: M3R72-6-N M3F72-6-N

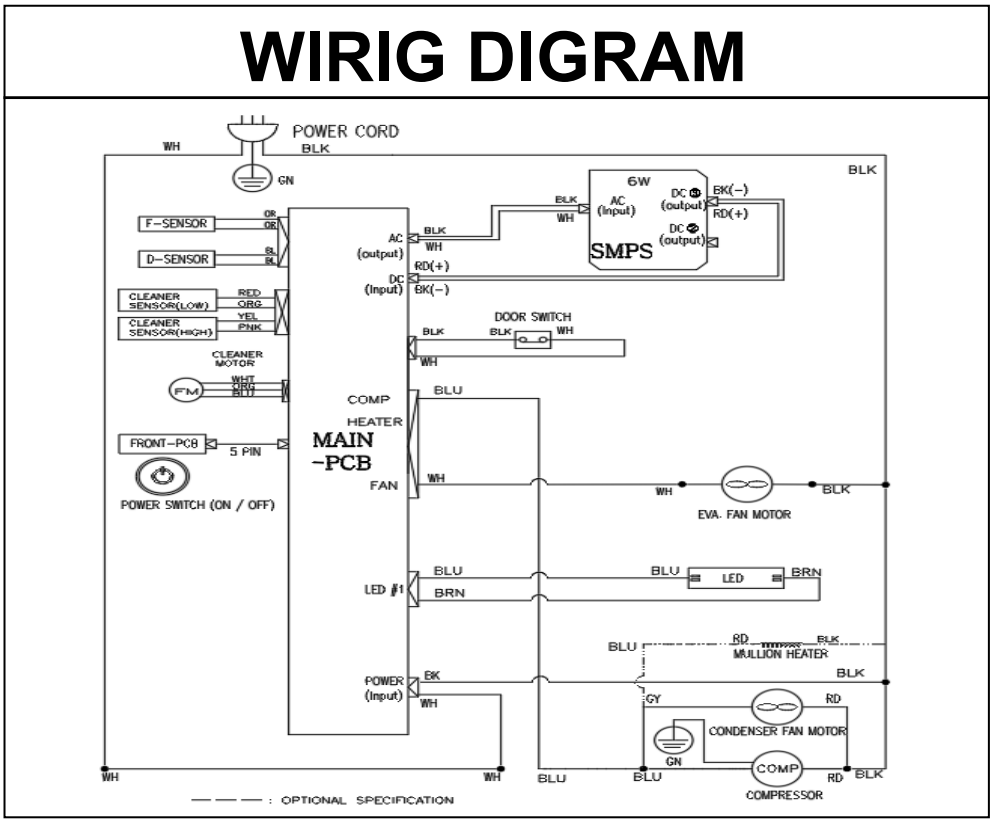
PLAN VIEW



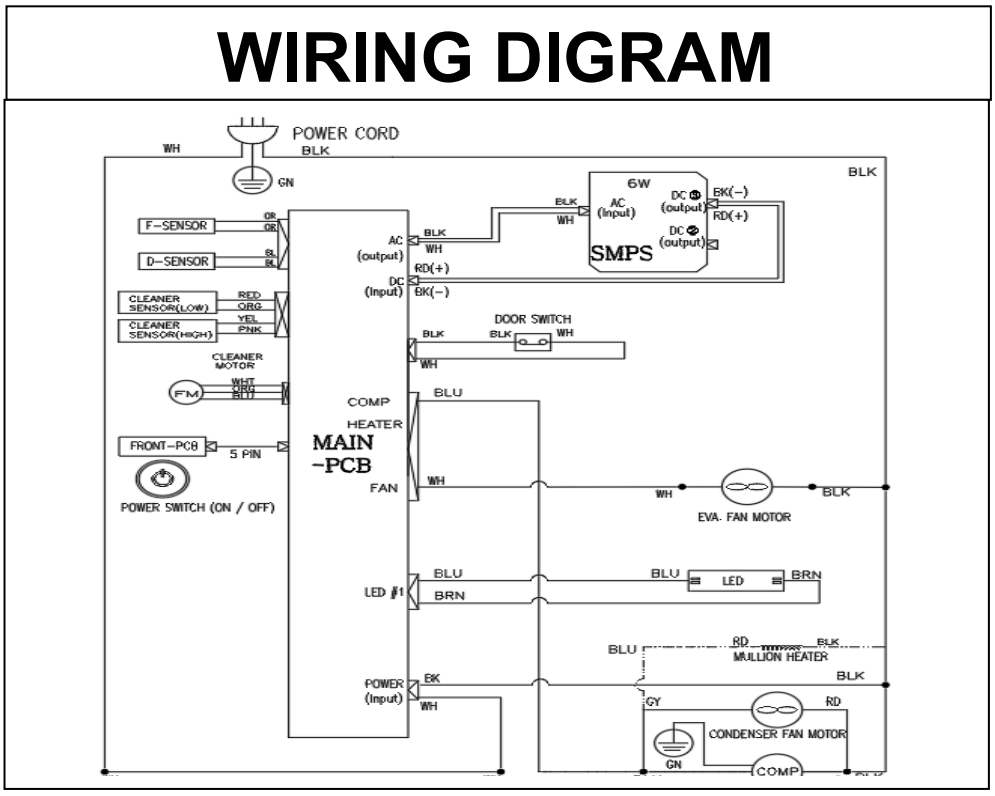
17 DRYER
18 DRAIN PAN
19 DRAIN GUIDE
20 DRAIN CASE
21 DRAIN PIPE
22 DRAIN CONNECTOR
23 EVAPORATOR
24EVAPORATOR MOTOR
25 LAMP COVER
26 TOP GRILE T
27TOP GRILE B
28EVAPORATOR COVER
29 LAMP

2.WIRING DIAGRAMS

2-1. M3R24-1-N

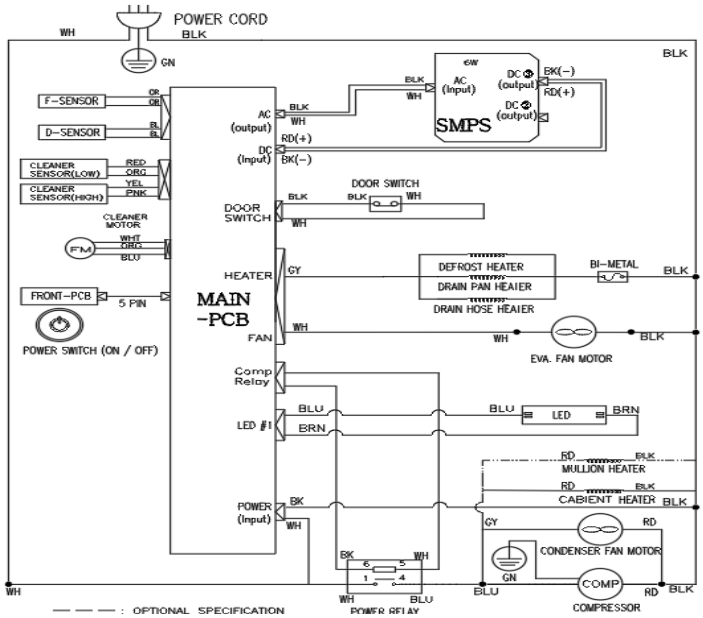


2-2. M3R24-2-N



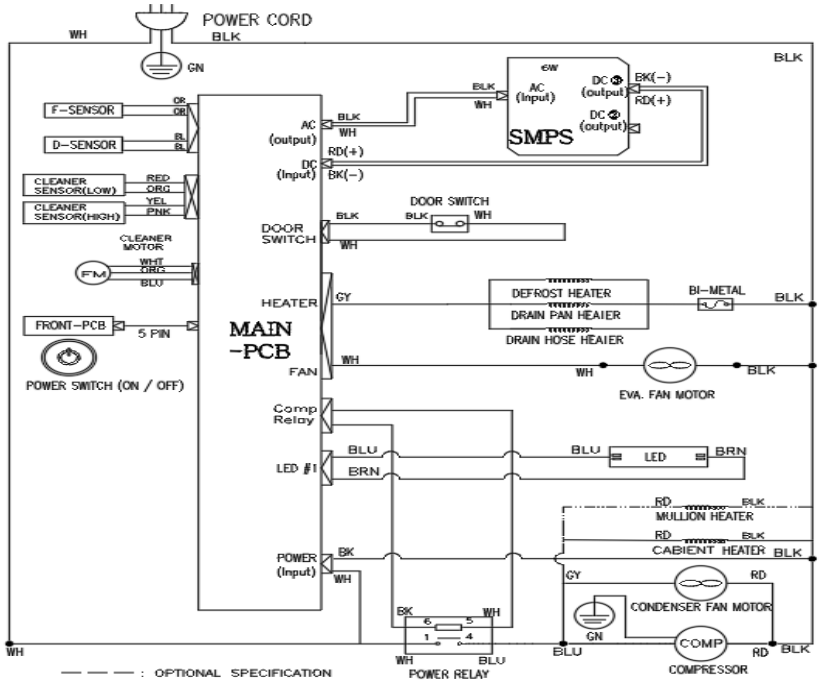
2-3. M3F24-1-N

WIRING DIGRAM



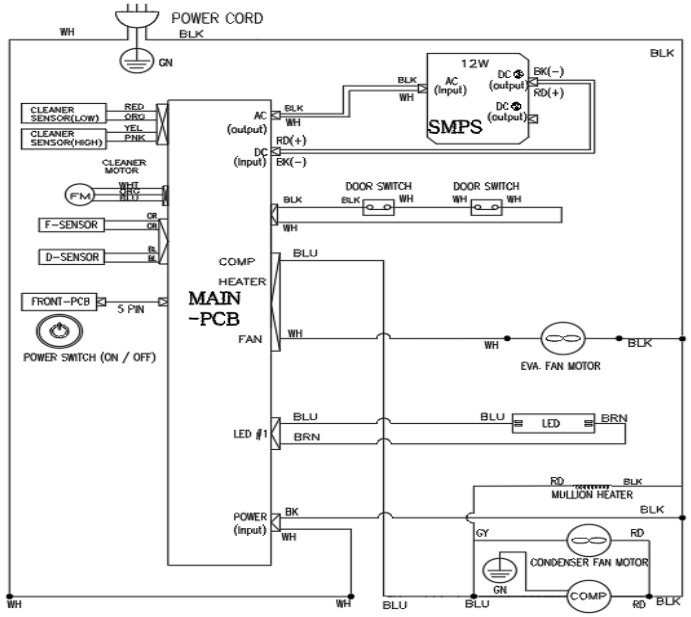
2-4. M3F24-2-N

WIRING DIGRAM



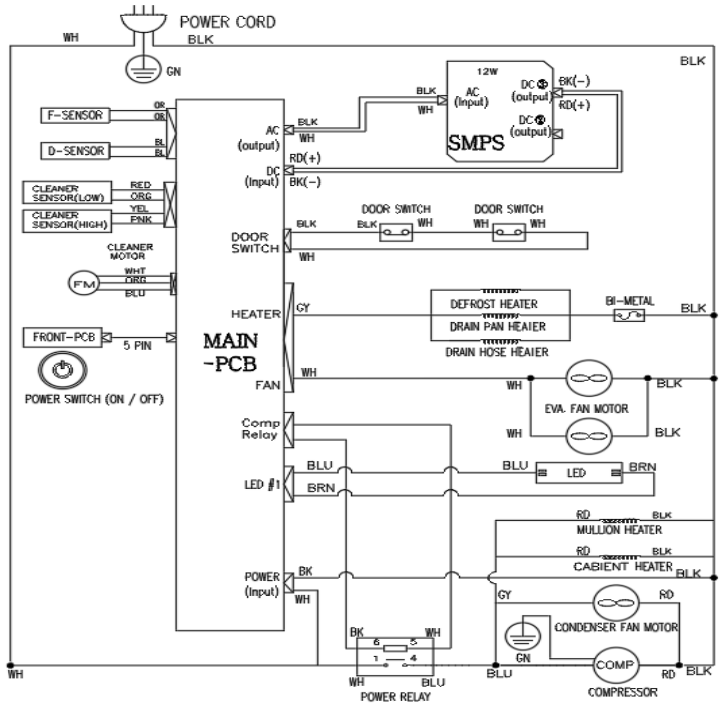
2-5. M3R47-2/4-N

WIRING DIGRAM



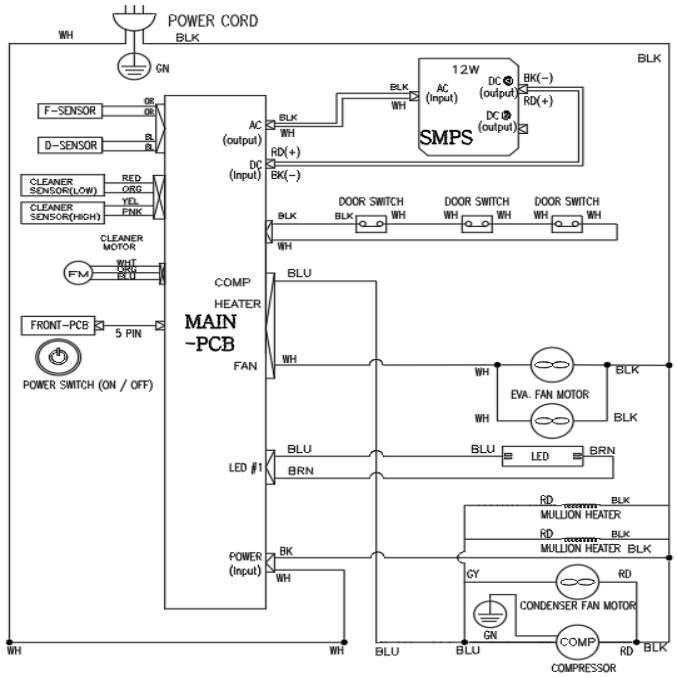
2-6. M3F47-2/4-N

WIRING DIGRAM



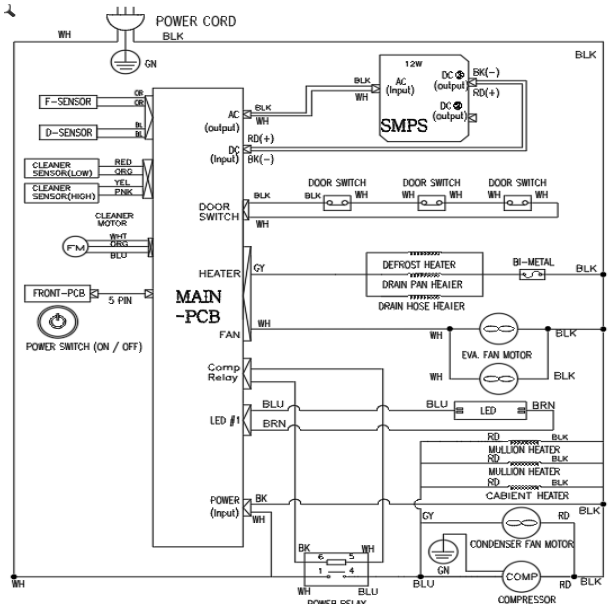
2-7. M3R72-3/6-N

WIRING DIGRAM



2-8. M3F72-3/6-N

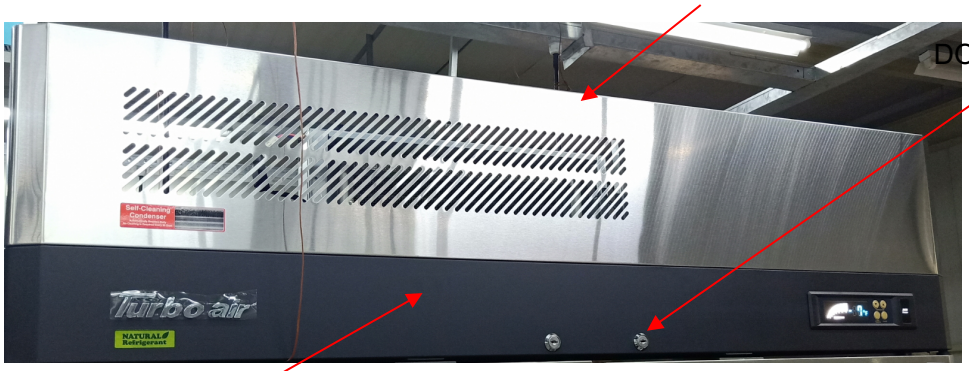
WIRING DIGRAM



3.PART DETAIL

3-1.TOP GRILLE

TOP GRILLE (T), TOP GRILLE (B)

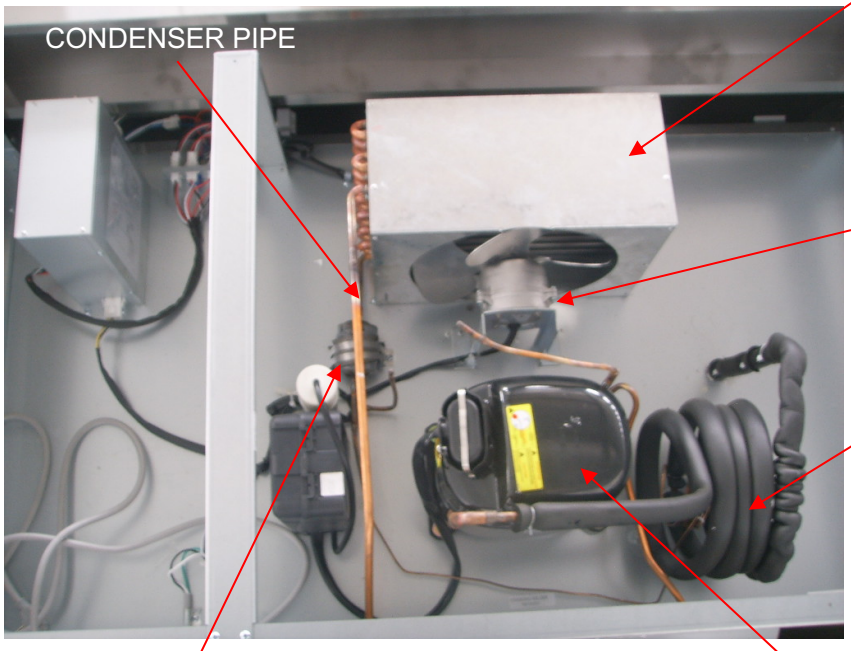


DISPLAY P.C.B



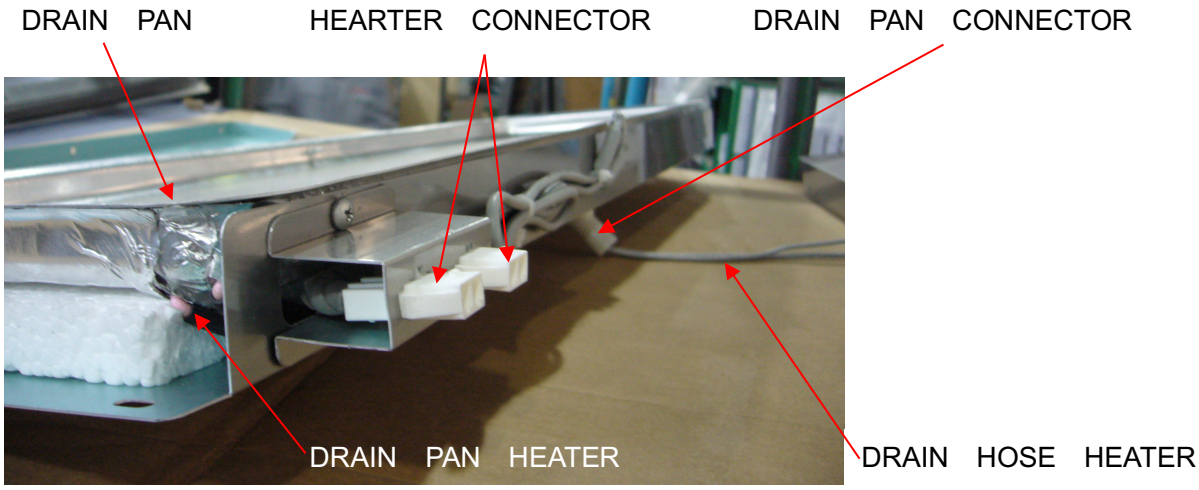
3-2.Refrigeration Compartment

Cycle Assembly

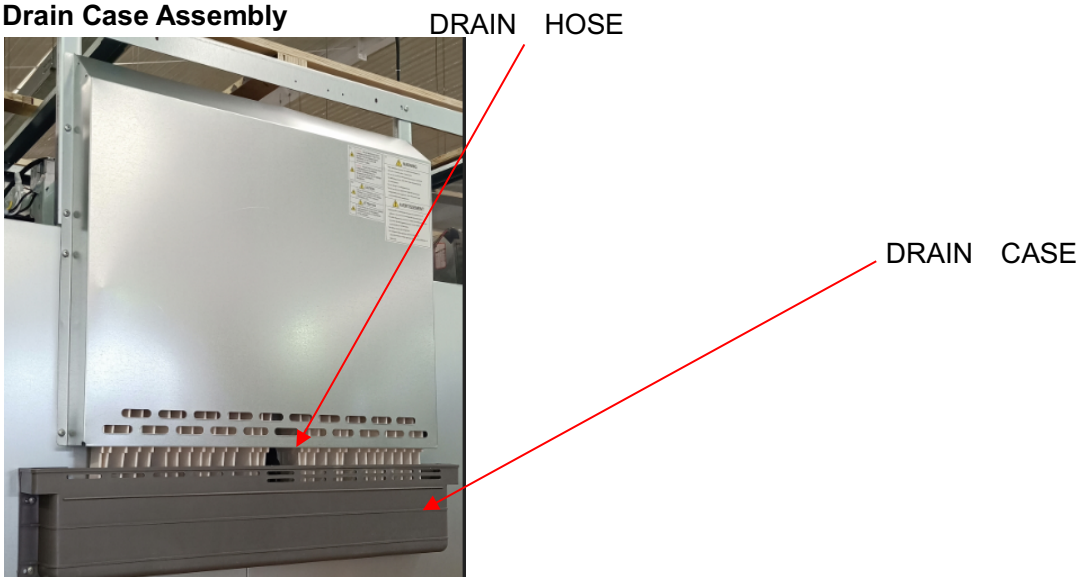


PART DETAIL

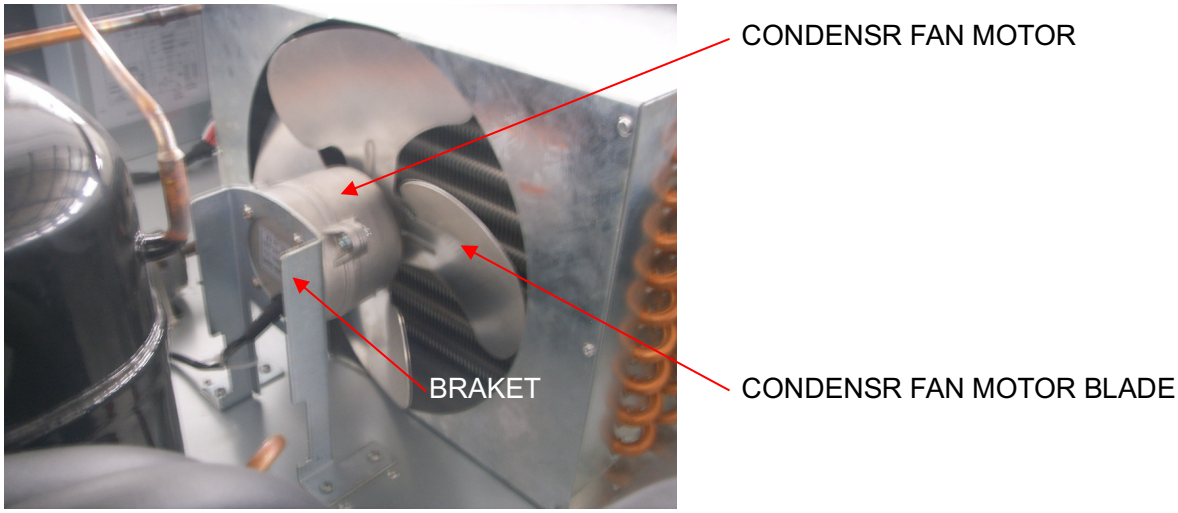
Drain Pan Assembly



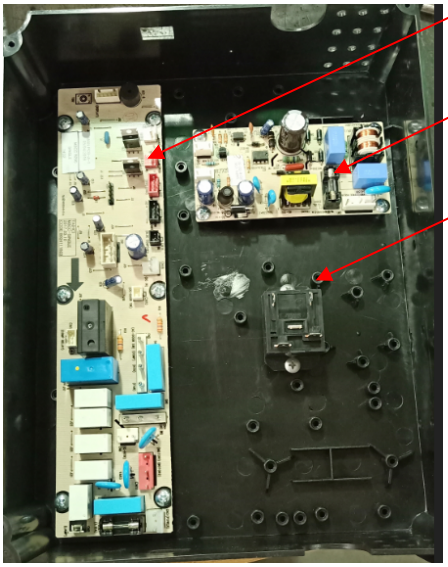
Drain Case Assembly



Condenser Fan Motor Assembly

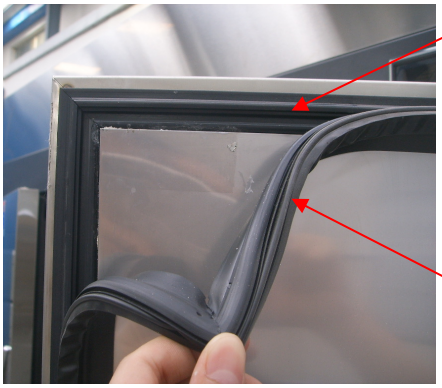


3-3.CONTROL BOX



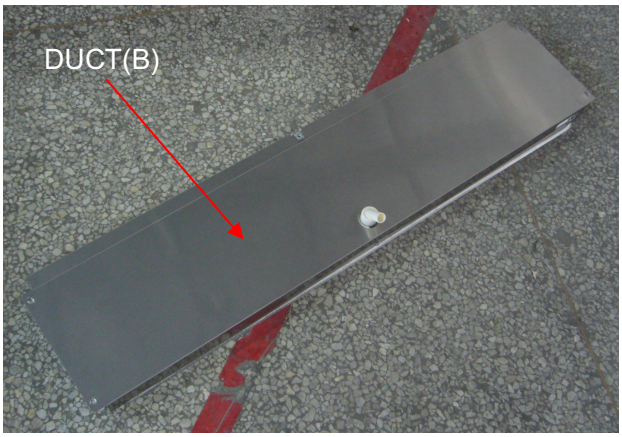
3-4.Door

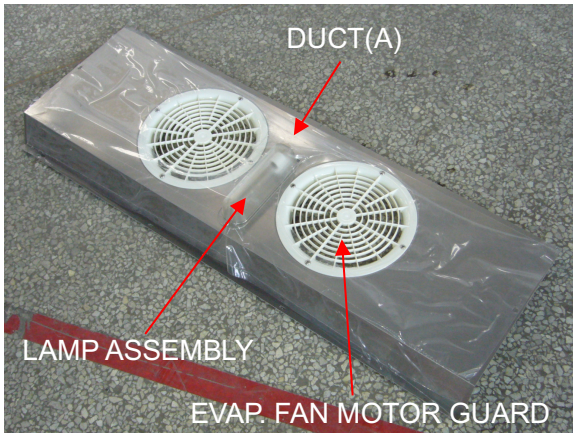
Gesket



3-5.制冷室

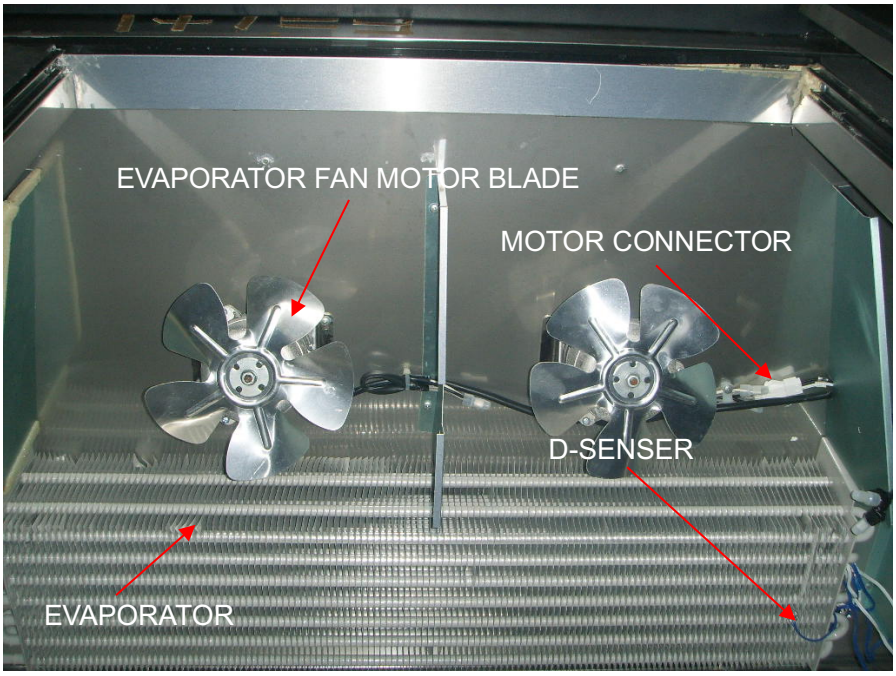
Freezer Duct & Refrigerator Duct (CM3R72-3/6,CM3F72-3/6,CM3R47-2/4,CM3F47-2/4)



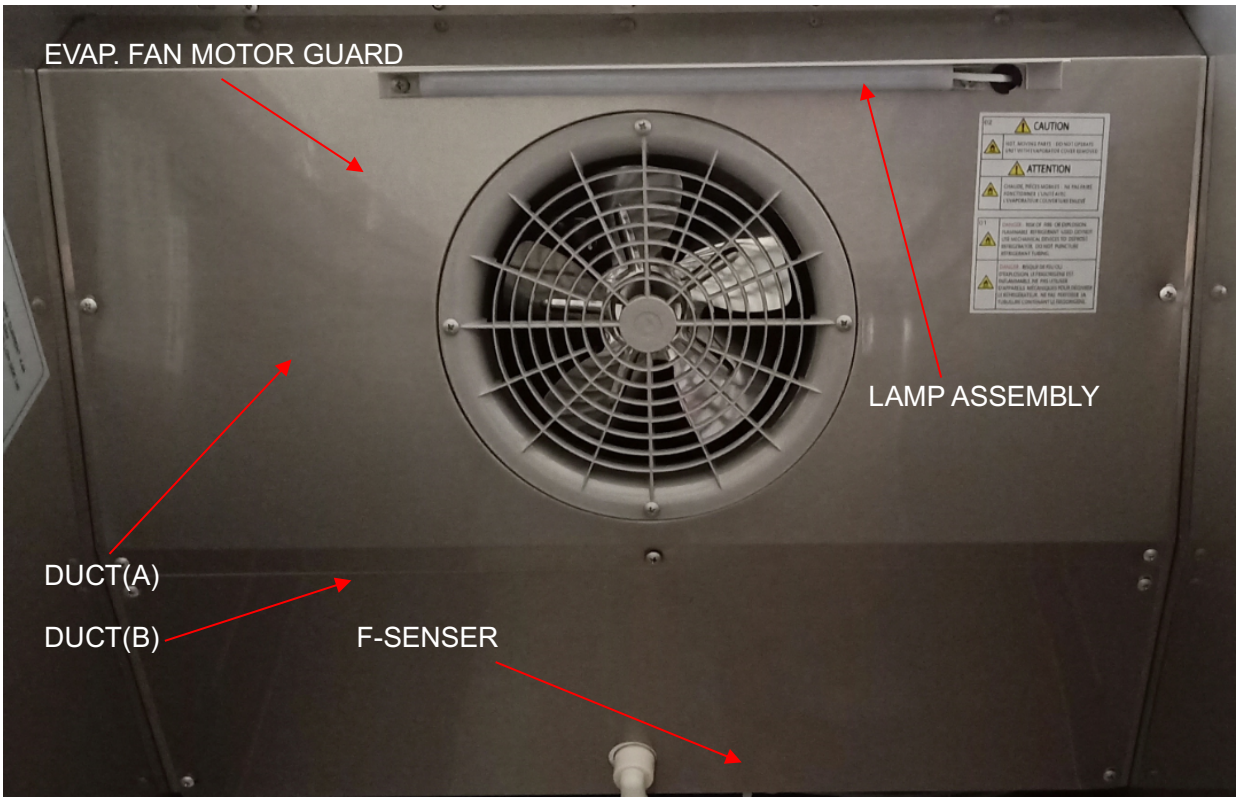


PART DETAIL

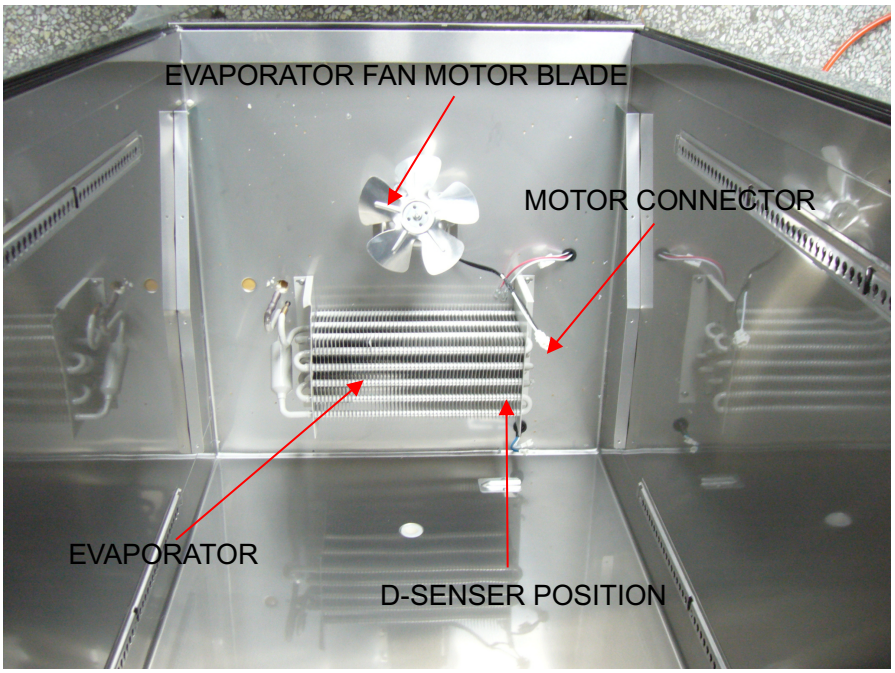
Freezer EVAP.,Fan(M3R47-2/4-N,M3F47-2/4-N)



Freezer Duct & Refrigerator Duct (M3R24-1/2-N,M3F24-1/2-N)



Freezer EVAP.,Fan(M3R24-1/2-N,M3F24-1/2-N)



MAIN COMPONENTS

4-1.COMPRESSOR

Model	M3R24-1-N M3R24-2-N	M3F24-1-N M3F24-2-N	M3R47-2-N M3R47-4-N	M3F47-2-N M3F47-4-N	M3R72-3-N M3R72-6-N	M3F72-3-N M3F72-6-N
Refrigerant	R-290	R-290	R-290	R-290	R-290	R-290
Voltage	115V	115V	115V	115V	115V	115V
Comp. model	EM2X3121U	NEU2140U	EM2X3125U	NEU2155U	NEU2140U	NT2180U
Part code	G2R5700300	G2F5700300	G5R5700200	G5F5700200	G8R5700100	G8F5700100
Starting Type	RSCR	CSR	RSCR	CSR	CSIR	CSR

4-2.COMPRESSOR RELAY

Model	M3R24-1-N M3R24-2-N	M3F24-1-N M3F24-2-N	M3R47-2-N M3R47-4-N	M3F47-2-N M3F47-4-N	M3R72-3-N M3R72-6-N	M3F72-3-N M3F72-6-N
Voltage		250V		250V		250V
Relay Model		SFD-112DM		SFD-112DM		SFD-112DM

4-3.CONDENSER DRYER

Model	M3R24-1-N M3R24-2-N	M3F24-1-N M3F24-2-N	M3R47-2-N M3R47-4-N	M3F47-2-N M3F47-4-N	M3R72-3-N M3R72-6-N	M3F72-3-N M3F72-6-N
Refrigerant	R-290	R-290	R-290	R-290	R-290	R-290
Spec.	C-052-5	C-052-5	C-052-5	C-052-5	C-052-5	C-052-5
Part code	M726800100					

4-4.CAPACITOR

Model	M3R24-1-N M3R24-2-N	M3F24-1-N M3F24-2-N	M3R47-2-N M3R47-4-N	M3F47-2-N M3F47-4-N	CM3R72-3 CM3R72-6	CM3F72-3 CM3F72-6
Voltage						
Running	20 μF		20 μF			20 μF
Part code						
Starting		208 μF		208 μF	208 μF	243-292 μF

4-5.EVA FAN MOTOR

Model	M3R24-1-N M3R24-2-N	M3R47-2-N M3R47-4-N	M3F24-1-N M3F24-2-N	M3F47-2-N M3F47-4-N	M3R72-3-N M3R72-6-N	M3F72-3-N M3F72-6-N
Voltage	115V/ 60Hz					
Motor Model.	ECR01A0K21					
Part code	G8F2700500					

4-6.CONDENSOR FAN MOTOR

Model	M3R24-1-N M3R24-2-N	M3F24-1-N M3F24-2-N	M3R47-2-N M3R47-4-N	M3F47-2-N M3F47-4-N	M3R72-3-N M3R72-6-N	M3F72-3-N M3F72-6-N
Voltage	115V/ 60Hz					
Motor Model.	ECR01A0K71					
Part code	G8F500200					

4-7.EVA DEFROST HEATER

Model	M3R24-1-N M3R24-2-N	M3F24-1-N M3F24-2-N	M3R47-2-N M3R47-4-N	M3F47-2-N M3F47-4-N	M3R72-3-N M3R72-6-N	M3F72-3-N M3F72-6-N
Voltage	X	115	X	115	X	115
Spec..	X	445W	X	601W	X	900W
Part code	X	N2F5300305	X	N5F5300303	X	N8F5300302

4-8.LAMP LED

Model	M3R24-1-N M3R24-2-N	M3F24-1-N M3F24-2-N	M3R47-2-N M3R47-4-N	M3F47-2-N M3F47-4-N	M3R72-3-N M3R72-6-N	M3F72-3-N M3F72-6-N
Voltage	12V		12V			
Spec..	4W		7W			
Part code	P151224202		P151224302			

4-9.TRANSFORMER

Model	M3R24-1-N M3R24-2-N	M3F24-1-N M3F24-2-N	M3R47-2-N M3R47-4-N	M3F47-2-N M3F47-4-N	M3R72-3-N M3R72-6-N	M3F72-3-N M3F72-6-N
Voltage	115V/60Hz					
Spec..						
Part code	G8F6000100					

4-10.MAIN PCB

Model	M3R24-1-N M3R24-2-N	M3F24-1-N M3F24-2-N	M3R47-2-N M3R47-4-N	M3F47-2-N M3F47-4-N	M3R72-3-N M3R72-6-N	M3F72-3-N M3F72-6-N
Voltage	115V/60Hz					
Spec..						
Part code	9004111603					

5. ELECTRONIC CONTROLLER INSTRUTION

5-1.FREEZER CONTROLLER

HOW TO USE THE PANEL

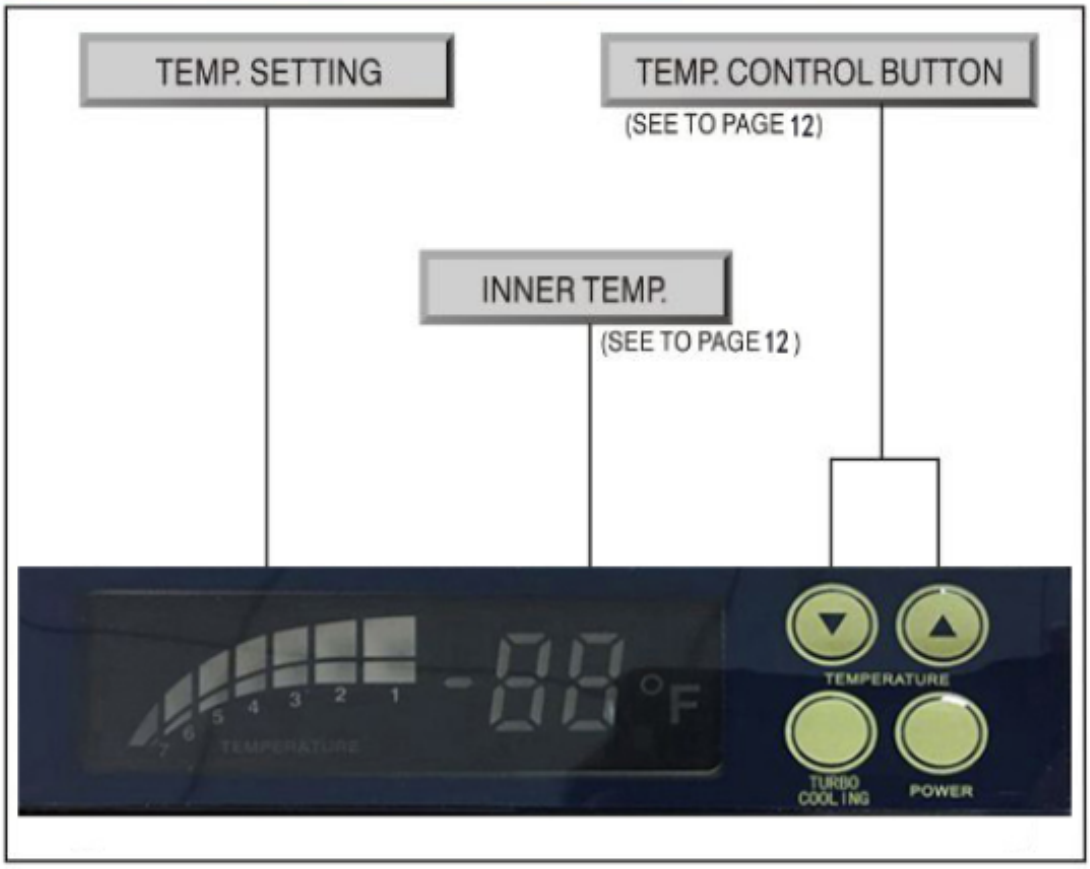
BASIC OPERATION

REFRIGERATORS

M3R19-1-N
M3R19-1-N(L)
M3R24-1-N
M3R24-1-N(L)
M3R47-2-N
M3R72-3-N
M3R19-2-N
M3R19-2-N(L)
M3R24-2-N
M3R24-2-N(L)
M3R47-4-N
M3R72-6-N

1. Plug in and the display panel will be lighted and make a beep sound.
   The compressor will begin to run.
2. The default temperature setting is No. "4" .
3. The compressor is automatically cycled by the electronic controller (PCB, RD-Sensor).
4. The defrost cycle is automatically controlled by the PCB.
5. Set level toward "1" for higher temperature and toward "7" for lower temperature.
6. The interior light is activated by the door switch at the bottom of the grille when the door is opened.
7. Evaporator fan motor(s) will run after all doors are completely closed.

DISPLAY PANEL OF REFRIGERATOR



ELECTRONIC CONTROLLER INSTRUCTION

UP/DOWN BUTTON (Temperature control button)

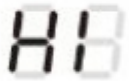
1. By pushing the up/down button, you can set the inside temperature level from ' 1 ' to '7'.
2. If you want lower temperature, push the Down button to be lighted higher level numbers.
3. If you want lower temperature quickly, push the 'turbo cooling' button.
4. If you want to turn off the power , push the 'power' button for several seconds and the power will be taken off, push again it will to run.

INNER TEMPERATURE DISPLAY

1. It displays the inside temperature.
2. Display range is 14°F to 69°F(-10°C ~ +20°C).
3. When the inside temperature is lower than 14°F, the panel will display 'LO'.



and, higher than 69°F , the panel will display 'HI'.



5-2.FREEZER CONTROLLER

HOW TO USE THE PANEL

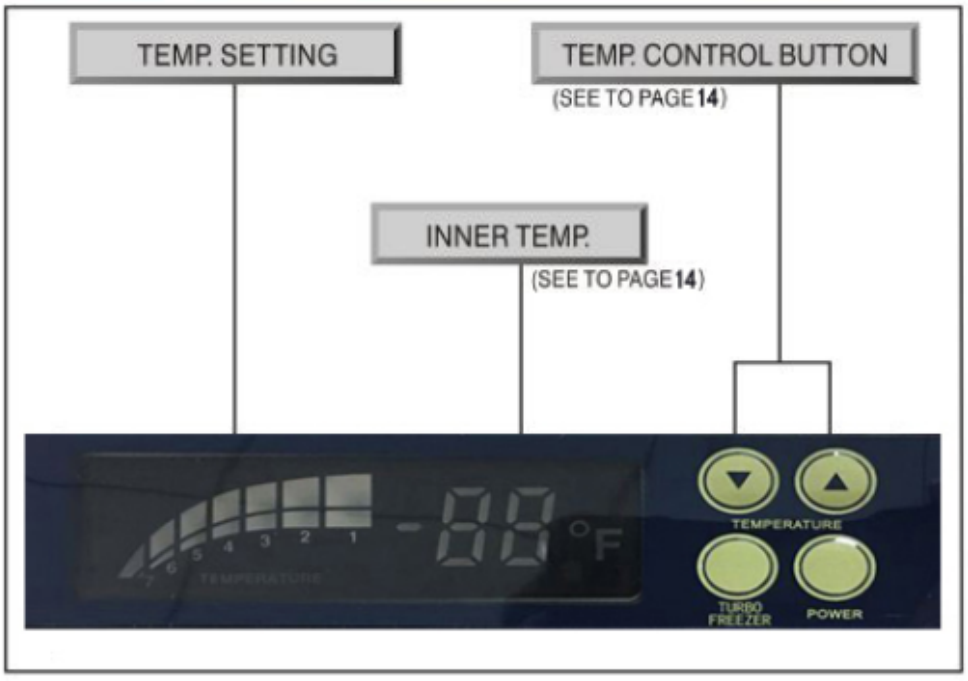
BASIC OPERATION

FREEZERS

M3F19-1-N	M3F19-2-N
M3F19-1-N(L)	M3F19-2-N(L)
M3F24-1-N	M3F24-2-N
M3F24-1-N(L)	M3F24-2-N(L)
M3F47-2-N	M3F47-4-N
M3F72-3-N	M3F72-6-N

1. Plug in and the display panel will be lighted and make a beep sound.
   The compressor will begin to run.
2. The default temperature setting is No. "4".
3. The compressor is automatically cycled by the electronic controller (PCB, F-Sensor).
4. The defrost cycle is automatically controlled by the RD-sensor, and the PCB.
5. Set level toward "1" for higher temperatures and toward "7" for lower temperatures.
6. The interior light is activated by the door switch at the bottom of the grille when the door is opened.
7. Evaporator fan motor(s) will run after all doors are completely closed.
8. Good Air Flow in freezer unit is critical.
   Be careful to load product so that it neither presses against the back wall, nor reaches within four inches from the evaporator compartment.

DISPLAY PANEL OF FREEZER



MANUAL DEFROST

1. Press the down (▼) button 5 times while pressing up (▲) button,the Defrost will start.
2. During the Manual Defrost mode,the Up/Down button for the temp, control can not make the compressor cycle ON or OFF.

UP/DOWN BUTTON (Temperature control button)

1. By pushing the up/down button, you can set the inside temperature level from'1' to'7'.
2. If you want lower temperatures, push the Down button to be lighted higher level numbers.
3. If you want lower temperature quickly, push the'turbofreezing'button.
4. If you want to turn off the power , push the 'power'button for several seconds and the power will be taken off, push again it will to run.

DEFROST

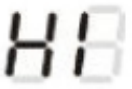
1. The electronic defrost controller is set at the factory to provide a defrost cycle every 6 hours (4 times per a day).
2. The panel displays "dF" during the defrost cycle.

INNER TEMPERATURE DISPLAY

1. It displays the inside temperature.
2. Display range is -40°F to+99°F(-40° C ~ 40° C)
3. When the inside temperature is lower than-40°F the panel will display 'LO'.



and, higher than 99°F the panel will show 'HI'.



6.PARTS LIST FOR M3

Part name	Code	Material	Description	Model											
				R24	F24	R24-2	F24-2	R47	F47	R47-4	F47-4	R72	F72	R72-6	F72-6
Cabinet															
LINER FRAME COVER (L)(R)	P8R1112200	PVC-H		2	2			2	2			2	2		
LINER FRAME COVER(LT)(RU)	P1F1120100	PVC-H				2	2			2	2			2	2
LINER FRAME COVER(LT)(RU)	P1F1120200	PVC-H				2	2			2	2			2	2
LINER FRAME COVER (TM)(UM)	P8F1113200	PVC-H										2	2	2	2
LINER FRAME COVER (TL)(UR)	P5F1113200	PVC-H						2	2	2	2	2	2	2	2
LINER FRAME COVER (T)	P2F1112300	PVC-H		1	1	1	1								
LINER FRAME COVER(U)	P2R1112400	PVC-H		1	1	1	1								
Control box															
FRONT PCB CASE	G8FR290100	ABS		1	1	1	1	1	1	1	1	1	1	1	1
HARNESS PCB	M3R0410104			1		1		1		1		1		1	
HARNESS PCB	G2F0411107				1		1		1		1		1		1
HARNESS SENSOR	G8F5100300			1	1	1	1	1	1	1	1	1	1	1	1
MAIN PCB	9004111603			1	1	1	1	1	1	1	1	1	1	1	1
MAIN PCB FIXTURE	G8F9200300	NYLON		6	6	6	6	6	6	6	6	6	6	6	6
POWER RELAY	SFD-112DM				1		1		1		1		1		1
Door															
ASS'Y DOOR (L)	G8F0500200							1	1			1	1		
ASS'Y DOOR (M)	G8F0500300											1	1		
ASS'Y DOOR (R)	G8F0500100							1	1			1	1		
ASS'Y DOOR (R)	G2F0500100			1	1										
ASS'Y DOOR (T)(L)	G8F0500400									1	1			1	1
ASS'Y DOOR (T)(M)	G2F0500200					1	1								
ASS'Y DOOR (T)(R)	G8F0500500									1	1			1	1
ASS'Y DOOR (T)(R)	G2F0500300					1	1								
ASS'Y DOOR (U)(L)	G8F0500600									1	1			1	1
ASS'Y DOOR (U)(M)	G8F0500700													1	1
ASS'Y DOOR (U)(R)	G2F0500300					1	1								
ASS'Y DOOR (U)(R)	G8F0500900									1	1			1	1
DOOR GASKET	P2R3300610	PVC-S								1	1			1	1
DOOR GASKET	P8F3300610	PVC-S						1	1			1	1		
DOOR GASKET	P2R3300510	PVC-S				1	1								
DOOR GASKET	P8R3300511	PVC-S		1	1										
DOOR HANDLE	G993200301			1	1	2	2	2	2	4	4	3	3	6	6
KEY	P998200100			1	1	2	2	2	2	3	3	3	3	1	1

Part name	Code	Material	Description	Model											
				R24	F24	R24-2	F24-2	R47	F47	R47-4	F47-4	R72	F72	R72-6	F72-6
Evap housing															
DRAIN GUIDE	G2F2700101	AL		1	1	1	1								
DRAIN GUIDE	G5F2700101	AL						1	1	1	1				
DRAIN GUIDE	G8F2700101	AL										1	1	1	1
DRAIN GUIDE PAD	G2F7300102	F-BS		1	1	1	1								
DRAIN GUIDE PAD	G5F7300102	F-BS						1	1	1	1				
DRAIN GUIDE PAD	G8F7300102	F-BS										1	1	1	1
DRAIN GUIDE PAD(LOW)	G8F7300200											1		1	
DEFROST HEATER	N2F5300305		115V 401W		1		1								
DEFROST HEATER	N5F5300303		115V 601W						1		1				
DEFROST HEATER	N8F5300302		115V 900W										1		1
DRAIN HOSE	G8 F3000100			1	1	1	1	1	1	1	1	1	1	1	1
DRAIN HOSE HEATER	T8F0525100	PVC	115V10W		1		1		1		1		1		1
DRAIN PAN HEATER	SP2F540103	PVC	115V		1		1								
DRAIN PAN HEATER	SP8F540103	PVC	115V						1		1		1		1
F SENSOR	G8F5100800				1		1		1		1		1		1
FAN BLADE	G8F2700500				1		1		1		1	1		1	
FAN BLADE	P8F2700300			1		1		1		1			2		2
FAN BLADE	P8F2700400			1	1	1	1	2	2	2	2	2	2	2	2
EVAP MOTOR	ECR01A0K21			1	1	1	1	1	2	1	2	1	2	1	2
CONDENSER MOTOR	ECR01A0K71			1	1	1	1	1	1	1	1	1	2	1	2
T SENSOR	G8R5100400			1		1		1		1		1		1	
THERMAL FUSE	T8F6200300				1		1		1		1		1		1
Inner case															
MULLION FRAME (V)	G8F3100100	PVC						2	2			4	4		
MULLION FRAME (V)	G8F3101000	PVC								2	2			4	4
MULLION FRAME COVER (V)	G8F3100400	PVC						2	2			4	4		
MULLION HEATER (VER)	P8F5300201	PVC	L=3060						1				2		
MULLION HEATER (VER)	P8R5300201	PVC	L=3060					1				2			
SHELF STANDARD	P8F2700100	AL		4	4	4	4	8	8	8	8	12	12	12	12
SHELF STANDARD REINFORCE	P992200100	GI		8	8	8	8	16	16	16	16	24	24	24	24
ASS'Y SHELF	G8F0800100											1	1	1	1
ASS'Y SHELF	G8F0800200							2	2	2	2	2	2	2	2
ASS'Y SHELF	G2F0800100			1	1	1	1								
LAMP LED	P151224202			1	1	1	1								
LAMP LED	P151224302							1	1	1	1	1	1	1	1
LAMP COVER	G2F1700606			1	1	1	1								
LAMP COVER	G5F1700406							1	1	1	1	1	1	1	1
SENSOR GUARD	P992000300	AL		1	1	1	1	1	1	1	1	1	1	1	1

Part name	Code	Material	Description	Model											
				R24	F24	R24-2	F24-2	R47	F47	R47-4	F47-4	R72	F72	R72-6	F72-6
SHELF	G2F1800101			3	3	3	3								
SHELF	G8F1800101							6	6	6	6	6	6	6	6
SHELF (M)	G8F1800201											3	3	3	3
SHELF CLIP	P993200800			16	16	16	16	32	32	32	32	48	48	48	48
Out case															
CABINET HEATER	P2F5300110	PVC	L=4288		1		1								
CABINET HEATER	P5F5300109	PVC	L=5396						1		1				
CABINET HEATER	P8F5300109	PVC	L=6720										1		1
DOOR HANDLE	G993200101	ABS		1	1	1	1	2	2	2	2	3	3	3	3
DOOR SWITCH	P995200100			1	1	1	1	2	2	2	2	3	3	3	3
SPRING BAR	G8F0501205					2	2			4	4			6	6
SPRING BAR	G8F0501002			1	1			2	2			3	3		
MASCOT				1	1	1	1	1	1	1	1	1	1	1	1
MIDDLE HINGE (L)	P992900609	SUS304								1	1			1	1
MIDDLE HINGE (R)	P992900509	SUS304				1	1			1	1			2	2
MULLION FRAME (H)	G2F1200101	PVC				2	2								
MULLION FRAME (H)	G8F1200302	PVC								4	4			6	6
MULLION FRAME COVER	G2F3100100	PVC				2	2								
MULLION FRAME COVER	G8F3100500	PVC								2	2			2	2
MULLION FRAME COVER	G8F3100600	PVC								2	2			2	2
MULLION FRAME COVER	G8F3100700	PVC								2	2			4	4
MULLION FRAME COVER	G8F3100800	PVC								2	2			4	4
MULLION FRAME COVER	G8F3100900	PVC												2	2
MULLION HEATER (VER)	P8F5300211	PVC							1				2		
MULLION HEATER (VER)	P8R5300209	PVC						1				2			
TOP GRILLE (T) FIXTURE	P998300200	STS43		2	2	2	2	2	2	2	2	2	2	2	2
TOP HINGE (L)	P992900209	STS304						1	1	1	1	1	1	1	1
TOP HINGE (R)	P992900109	STS304		1	1	1	1	1	1	1	1	2	2	2	2
TRANS FORMER	P996000100			1	1	1	1	1	1	1	1	1	1	1	1
Top grille															
TOP GRILLE (T3)	G8F1600109	SUS304-#4										1	1	1	1
TOP GRILLE(B) BACK COVER	G8F1600201	GI		1	1	1	1	1	1	1	1	1	1	1	1
TOP GRILLE(T2)	G5F1600109	SUS304-#4						1	1	1	1				
TOP GRILLE(T1)	G2F1600109	SUS304-#4		1	1	1	1								

PARTS LIST FOR M3

Part name	Code	Material	Description	Model

				R24	F24	R24-2	F24-2	R47	F47	R47-4	F47-4	R72	F72	R72-6	F72-6
TOP GRILLE (B)	G2R0411401	GI	BLACK	1	1	1	1								
HARNESS GRILLE DOOR S/W	G2F0315700			1	1	1	1								
TOP GRILLE (B)	G5R0411501	GI	BLACK					1	1	1	1				
HARNESS GRILLE DOOR S/W	G2F4709100							1	1	1	1				
TOP GRILLE (B)	G8R0411202	GI	BLACK									1	1	1	1
TOP GRILLE (B) FIXTURE	G8F1900301	GI		2	2	2	2	3	3	3	3	3	3	3	3
HARNESS GRILLE DOOR S/W	G8F4709101											1	1	1	1
TOP GRILLE (T) FIXTURE	P8F1600401	SUS304-2B		2	2	2	2	2	2	2	2	2	2	2	2
Unit															
TEE	G994200100	CU		1	1	1	1	1	1	1	1	1	1	1	1
SUCTION PIPE A	N2R0517203	CU	Φ9.52X0.6T	1		1									
SUCTION PIPE A	N3R4722301	CU						1		1					
SUCTION PIPE A	N3R0326101	CU										1		1	
SUCTION PIPE A	N2F0702202	CU			1		1								
SUCTION PIPE A	N3F4723101	CU							1		1				
SUCTION PIPE A	N8F4200600	CU											1		1
CONDENSER AS	N2R0324105			1		1									
CONDENSER AS	N2F0324404				1		1								
CONDENSER AS	N5R4701106							1		1		1		1	
CONDENSER AS	N3F4701107								1		1		1		1
PIPE(CON-COMP)	N2F0324101				1		1								
PIPE(CON-COMP)	N3F4723203								1		1				
PIPE(CON-COMP)	N8F0325102												1		1
DRAIN PIPE	N2R0714101			1		1									
DRAIN PIPE	N5R0714101							1		1					
DRAIN PIPE	N8R0714101											1		1	
EVAP ASS	N2R0324504			1		1									
EVAP ASS	N2F0324506				1		1								
EVAP ASS	N5R4700203							1		1					
EVAP ASS	N5F4700100								1		1				
EVAP ASS												1		1	
EVAP ASS	N8F0711103												1		1
PIPE(CON-PIPE)	N2R0325102			1	1	1	1								
Y PIPE	M724401603			1	1	1	1	1	1	1	1	1	2	1	2
PIPE(CON-Y)	N8F0801100			1	1	1	1	1	1	1	1	1	2	1	2
PIPE(DRYER-CAPI TUBE)	M724401301			1	1	1	1	1	1	1	1	1	2	1	2
DRYER DISCHARGE	M724400701			1	1	1	1	1	1	1	1	1	2	1	2

PARTS LIST FOR M3

Part name	Code	Material	Description	Model											
				R24	F24	R24-2	F24-2	R47	F47	R47-4	F47-4	R72	F72	R72-6	F72-6

HARNESS RELAY	N2R0421100			1		1									
HARNESS RELAY	N5R0725100							1		1					
HARNESS RELAY	N8R0531302											1		1	
HARNESS RELAY	G2F5100106				1		1								
HARNESS RELAY	N5F0521101								1		1				
HARNESS RELAY	N8F0531201												1		1
FILTER DRYER	P994100100			1	1	1	1	1	1	1	1	1	1	1	1
Other															
CABINET FOAM ASS'Y	G2F9100100			1	1	1	1								
CABINET FOAM ASS'Y	G5F9100100							1	1	1	1				
CABINET FOAM ASS'Y	G8F9100100											1	1	1	1
TOP HINGE SPACE	P8F2600100	ABS		2	2	4	4	4	4	8	8	6	6	12	12
DRAIN HOSE CAP	P8F9900101	RUBBER	BLACK	1	1	1	1	1	1	1	1	1	1	1	1
COMPRESSOR	NEU2140U				1		1								
COMPRESSOR	NEU2155U								1		1				
COMPRESSOR	NT2180U												1		1
COMPRESSOR	EM2X3121U			1		1									
COMPRESSOR	EM2X3125U							1		1					
COMPRESSOR	NEU2140U											1		1	

7.REPLACEMENT OF MAIN COMPONENTS

7-1. TOP GRILLE PART

A. Unscrew the screw located on both side of top grille (t) with the top grille (t) fixture.



B. Hold up the top grille (T)



C. Unscrew the screw located on both side of top grille (B).



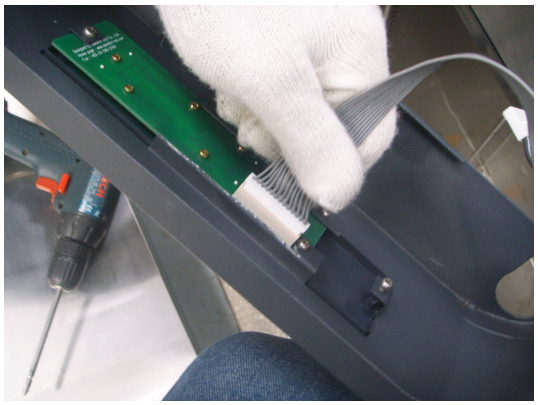
REPLACEMENT OF MAIN COMPONENTS

D. Unscrew the screw located on the cabinet top cover.



E. Pull out the harness display pcb and harness grille door s/w located on back of top grille (B).





You can replace the door switch, mascot, key, front pcb and front pcb case, etc.

7-2. REPLACE DOOR

7-2-1. REPLACE DOOR (CM3R24-1,CM3F24-1,CM3R47-2,CM3F47-2,CM3R72-3,CM3F72-3)

A. Disassemble top grille (T) and top grille (B) as described section 7-1.

B. Unscrew the top hinge (R).



C. Lift the door (R) and pull it out.



D. Replace the door with the new one.

E. Screw the top hinge (L). (this process is opposite to disassemble them.)

F. Do just like above instructions in replacing the door (L).

REPLACEMENT OF MAIN COMPONENTS

7-2-2. REPLACE DOOR (M3R24-2-N,M3F24-2-N,M3R47-4-N,M3F47-4-N,M3R72-6-N,M3F72-6-N)

A. Disassemble top grille (t) and top grille (b) as described section 7-1.

B. Unscrew the top hinge (L).



C. Lift the door (T) (L) and pull it out.



D. Unscrew the middle hinge (L).



E. Lift the door (U) (L) and pull it out.



Then you can replace new doors and assemble them, those processes are opposite to disassemble them.

F. Do just like above instructions in replacing the door (T)(R) and the door (U)(R).

7-3. REFRIGERATION COMPARTMENT'S PART

- Duct and Lamp
- T-sensor and D-sensor
- Evaporator coil and F-sensor
- Defrost heater (freezer only)
- Evaporator fan motor and fan blade

7-3-1. REPLACE DUCT AND LAMP

A.Disassemble the Duct.



B. Unscrew the screws of lamp cover.



REPLACEMENT OF MAIN COMPONENTS

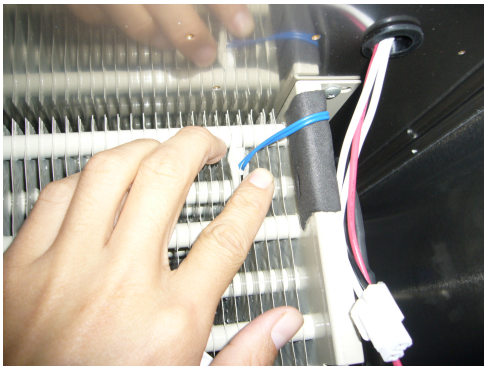
7-3-2. REPLACE T SENSOR AND D SENSOR (T-SENSOR IS WHITE COLOR, F-SENSOR IS ORANGE AND D-SENSOR IS BLUE)

A.Disassemble the Duct as in 7-3-1

B. Disconnect the connector and pull out the D-sensor from the evap. replace the

new one.





(D-SENSOR IS BLUE)

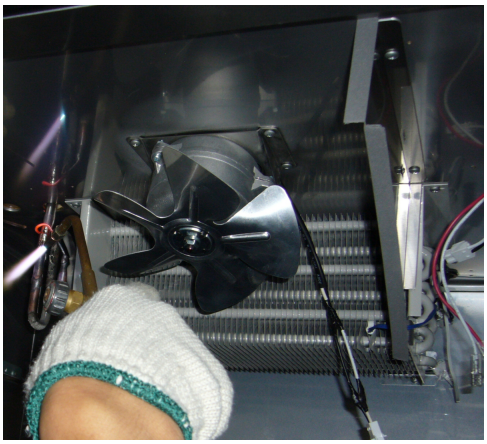
C. Take off the T-sensor from the evap. replace the new one.



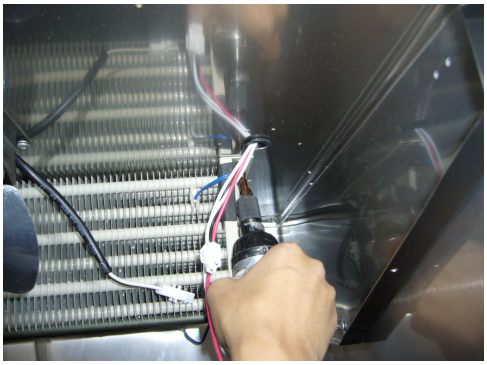
(T-SENSOR IS WHITE COLOR)

7-3-3. REPLACE THE EVAPORATOR COIL AND F-SENSER

A. Welding off the connection suction pipe(A) and (B).



B. Unscrew the screw located on back side of evap. housing.



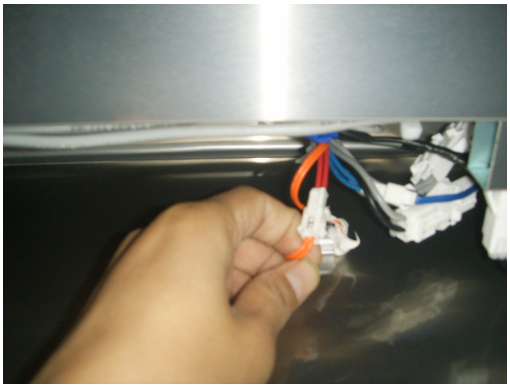


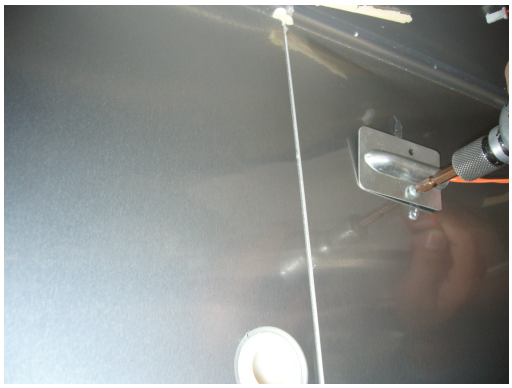
C. Take off the evaporator.



REPLACEMENT OF MAIN COMPONENTS

D. Disconnect the connector and Unscrew the screws located on sensor cover and pull out the F-sensor from the evap.sensor guide, replace the new one.

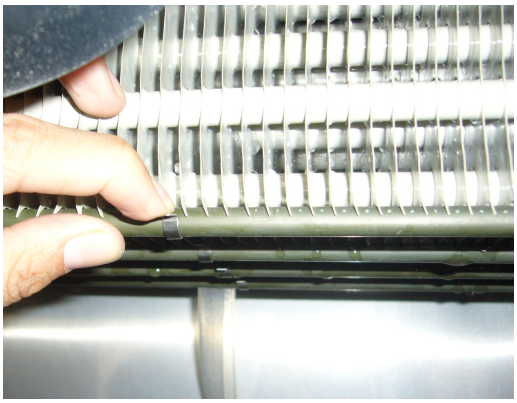




7-3-4. REPLACE THE DEFROST HEATER (FREEZER ONLY)

A. After lift the evaporator up, disconnect the connectors with harness defrost heater and disassemble the defrost fixture spring and split the hooks of the evap..





B. Replace the new defrost heater and fix it with heater fix spring. Connect the connectors.

***NOTE**

Why is always 220 voltage detected between connectors of the evaporator defrost heater in the main harness?

The SNUBBER (located Main PCB) holds two AC power lines simultaneously.
The SNUBBER prevents Main PCB malfunction from sparks occurred by other electrical component's ON/OFF. (SNUBBER =Spark killer)
Because of the SNUBBER, 220 voltage is always detected, but electrical current in this case is very little (small Amps.).So, this electrical current is not enough to operate the evaporator defrost heater.

REPLACEMENT OF MAIN COMPONENTS

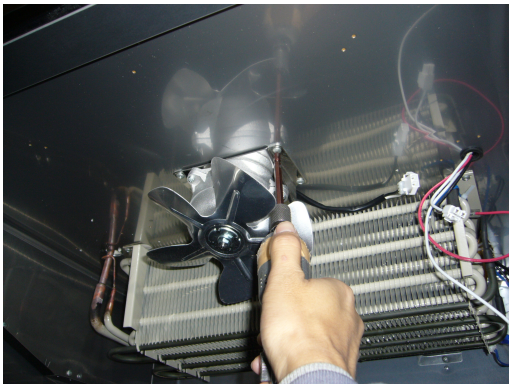
How to measure the Amps. of the evaporator defrost heater

Disconnect the connectors of the evaporator defrost heater.

Then , prepare the additional Power Source(220V/50Hz) and the Amp. Meter.
Connect the connectors of the evaporator defrost heater to the additional power source and read amp. Value from the Amp. Meter.

7-3-5. REPLACE THE EVAPORATOR FAN MOTOR AND FAN BLADE

A. After lift the evaporator up, unscrew the screw which used in fixing motor fixture.



B. Disconnect the connectors of harness motor.



Then you can replace the evaporator fan motor and fan blade.

REPLACEMENT OF MAIN COMPONENTS

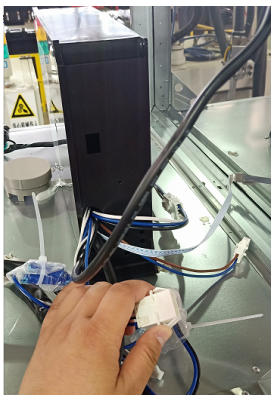
7-4. CONTROL BOX PART

- Power relay

- Transformer
- Main PCB

A. Disassemble top grille (t) as described section 7-1 A B.

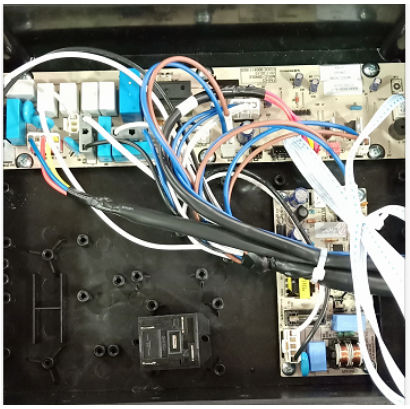
B. Pull out all connectors connected with control box.



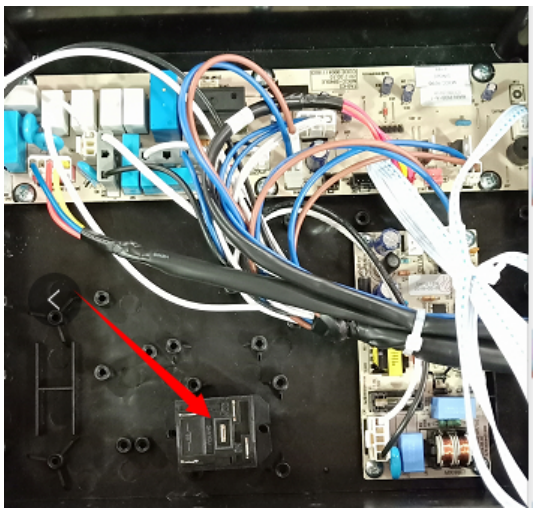
C. Unscrew the screws located on front of evap-housing.



E. Pull out the harness main.



F. Unscrew the screws used in fixing power relay and trans former.



G. Disconnect the main PCB fixture.



Then you can replace the power relay, trans former and main pcb.

REPLACEMENT OF MAIN COMPONENTS

7-5. CONDENSER UNIT

- Compressor
- Condenser fan motor
- Dryer filter
- Pressure switch



The comp. Base is located on both side on the top of the cabinet by screw, and you can replace the Compressor ,Condenser coil Condenser fan motor, ETC. on it.

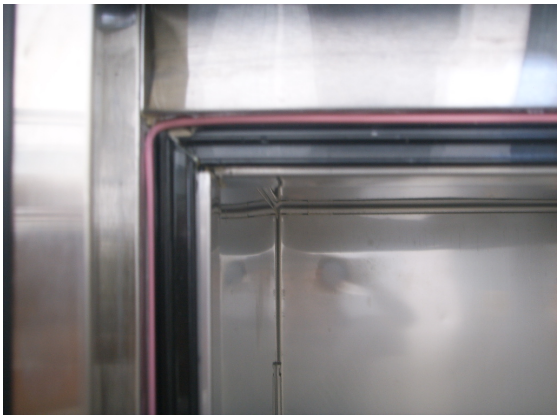
7-6. REPLACE THE CABINET HEATER AND MULLION HEATER

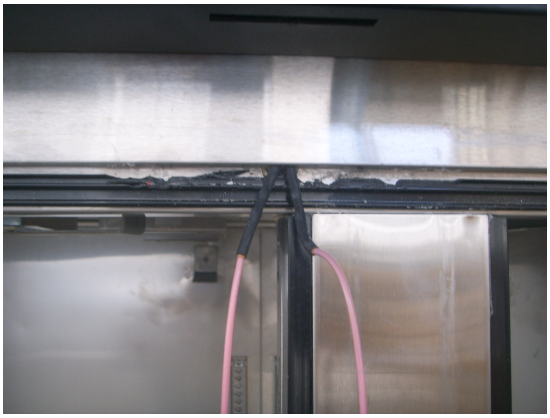
A. Disassemble the liner frame cover with the and edge of '—'type screwdriver.(left/right/top/bottom side)



B. Disconnect the cabinet heater and pull it out.

You can replace the cabinet heater with the new one.





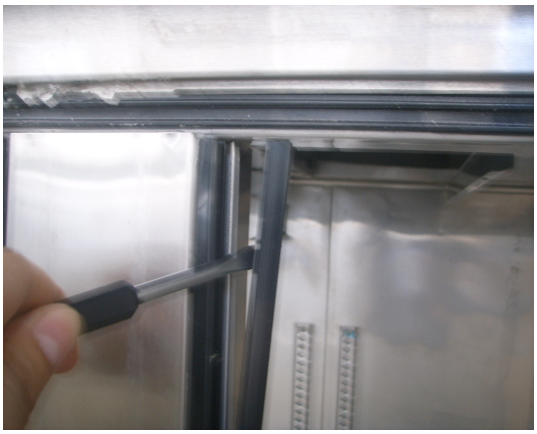
C. Assemble the liner frame cover.(left/right/top/bottom side)



REPLACEMENT OF MAIN COMPONENTS

D. Disassemble the mullion frame cover(v) with the and edge of '—'type

screwdriver.



E. Unscrew the screw located on both side of the mullion.

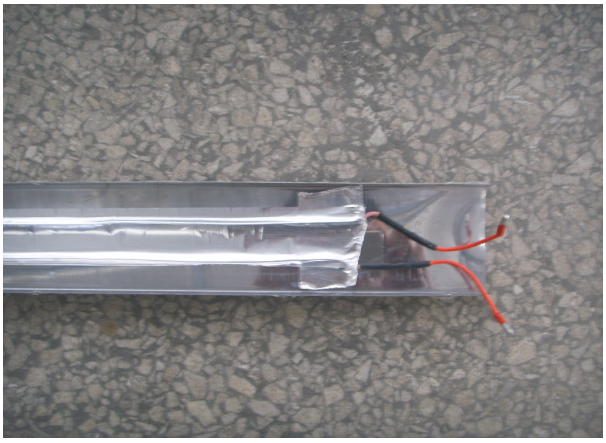


F. Take apart the mullion out cover(v) from the mullion, then disconnect the harness mullion heater.





G. Change the old mullion heater(v) and install the new one with the gap between wires 1.2 inch.



H. Insert the mullion out cover(v) into the original position, then screw it on both side of the mullion.(this process is opposite to disassemble the mullion out cover(v))

J. Assemble the mullion frame cover(v).(this process is as alike as assembling the liner frame cover)

K. Do just like above instructions in replacing mullion heater(h). (CM3R24-2,CM3F24-2 only, but before replacing mullion heater(h), doors should be disassembled.)





REPLACEMENT OF MAIN COMPONENTS

